

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1 to 17. (Canceled).

18. (New) A gas sensor for determining a physical property of a measuring gas, comprising:

a sensor element arranged in a metal housing; and

at least one sealing element which seals the sensor element

and is arranged in a metal receptacle affixed to the metal housing;

wherein the at least one sealing element surrounds the sensor element one of in a centered position along a longitudinal extension of the sensor element and a half of the sensor element facing the measuring gas.

19. (New) The gas sensor of claim 18, wherein the physical property includes one of a concentration of a gas component and a temperature of an exhaust gas.

20. (New) The gas sensor of claim 18, wherein the sensor element is affixed in the metal housing by at least one of the at least one sealing element and the metal receptacle.

21. (New) The gas sensor of claim 18, wherein the metal receptacle adjoins a measuring gas chamber.

22. (New) The gas sensor of claim 18, wherein the at least one sealing element is joined to the sensor element and the metal receptacle.

23. (New) The gas sensor of claim 18, wherein the at least one sealing element includes one of a glass and a glass ceramic.

24. (New) The gas sensor of claim 18, wherein a first expansion coefficient of the at least one sealing element and a second expansion coefficient of the sensor element differ by no more than 10 percent, the at least one sealing element is joined to the sensor element and the metal receptacle.

25. (New) The gas sensor of claim 18, wherein the metal receptacle is affixed to the metal housing by an integral connection.

26. (New) The gas sensor of claim 25, wherein the integral connection includes a welded connection.

27. (New) The gas sensor of claim 18, wherein a sleeve surrounds a section of the sensor element and a contacting of the sensor element, the sleeve is arranged on a side of the gas sensor facing away from the measuring gas, and the metal receptacle and the sleeve are affixed to the metal housing by a common integral connection.

28. (New) The gas sensor of claim 27, wherein the common integral connection includes a welded connection.

29. (New) The gas sensor of claim 18, wherein the metal receptacle is cup-shaped and has a closed configuration on one side, a bottom of the metal receptacle includes a recess for receiving the sensor element.

30. (New) The gas sensor of claim 29, wherein a distance between the sensor element and a side wall of the metal receptacle is one of smaller than and equal to twice a height of the sensor element, the height of the sensor element is an extension of the sensor element perpendicular to a large surface of the sensor element.

31. (New) The gas sensor of claim 18, wherein an open end of the metal receptacle includes a section extending outward perpendicular to a longitudinal axis of the metal receptacle, a sleeve- shaped section is connected to the section.

32. (New) The gas sensor of claim 18, wherein a first glass-containing sealing element and a second glass-containing sealing element are arranged in the metal receptacle one behind the other in a longitudinal direction of the sensor element, a glass of the first-containing sealing element facing the measuring gas has a higher melting point than a glass of the second sealing element facing away from the measuring gas, the glass of the second sealing element being completely molten after a heat treatment and forming an integral connection with the sensor element and the glass of the first sealing element is one of not molten and not completely molten.

33. (New) The gas sensor of claim 32, wherein a glass-containing third sealing element, with a viscous consistency at temperatures at which the gas sensor is used, is arranged on a side of the second sealing element facing away from the measuring gas.

34. (New) The gas sensor of claim 18, wherein a first sealing element faces the measuring gas and a second sealing element faces away from the measuring gas are provided, the first sealing element and the second sealing element are arranged in the metal receptacle one behind the other in a longitudinal direction of the sensor element, the first sealing element being arranged on a side of the metal receptacle facing the measuring gas, and the first sealing element includes a ceramic and the second sealing element includes one of a glass and a glass ceramic.

35. (New) The gas sensor of claim 34, wherein a third sealing element includes pressed ceramic powdered material and is arranged between the first sealing element and the second sealing element.

36. (New) A method for producing a gas sensor, comprising:

introducing a sensor element and at least one sealing element into a metal receptacle;
heating the metal receptacle, the at least one sealing element and the sensor element to a temperature at which at least one sealing element forms an integral connection with the sensor element and the metal receptacle;

introducing the at least one sealing element into a metal housing; and
affixing the metal receptacle in the metal housing.

37. (New) The method of claim 36, wherein the at least one sealing element includes a glass-forming component.

38. (New) The method of claim 37, wherein the metal receptacle, the at least one sealing element, and the sensor element are subjected to a heat treatment above a melting temperature of the glass-forming component of the at least one sealing element before being installed in the metal housing.